## **Participant Questionnaire**

Participant number: 14			С	ate:
Location: Brescia	IT			
HRC Study / Algorithms tested:		TAP-PP	Z	
Study Conducted by:				
	•	-		
Participant link lengths/dimensions	s: ( <b>meters</b> , "spine" is	pelvis to shoulder	midpoint, "shoulders	" is shoulder to shoulder)
Spine Neck	Left Upper Arm Left Forearm	.28	Right Upper Arm Right Forearm	,26
Shoulders .38	Lett Torearm	. 26	Night Foreami	125
Participant joint diameter: (meters	)			
Left Elbow ·[	Right Elbow	095		

.065

#### **Questions:**

Left Wrist

.065

A. How safe did you feel? (0 is not safe at all, 5 is neutral, 10 is very safe)

**Right Wrist** 

- B. Do you think the robot hindered your motions during the task? (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)
- C. Did the robot perform logical motions? (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)
- D. What is your overall satisfaction with the HRC task? (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)

	14	_	
Participant number:		Date:	

### For Task 1 (engine parts): (circle your answer to each question)

Task 1, Me	thod 1:									
Question /	A: (0 is not	safe at all, 5	is neutral	, 10 is very	safe)					
0	1	2	3	4	5	6	7	8	9	10
Question I	B: (0 is rob	ot complete	ly prevente	ed your mo	tions, 5 is r	neutral, 10	is robot did	not imped	e you motic	on)
0	1	2	3	4	5	6	(7)	8	9	10
Question	C: (0 is rob	ot motions i	made no se	ense to you	, 5 is neutra	al, 10 is rob	ot motions	made sens	se to you)	
0	1	2	3	4	5	6	7	8	9	10
Question D	: (0 is you w	ould not wo	rk in this HR	C cell again,	5 is neutral,	. 10 is you er	njoyed worki	ng in this ce	ll with the ro	bot)
0	1	2	3	4	5	6	7	8	9	10

Task 1, M	ethod 2:									
Question	A: (0 is not	safe at all, !	5 is neutral	, 10 is very	safe)					
0	1	2	3	4	5	6	7	8	9	10
Question	B: (0 is robo	ot complete	ely prevente	ed your mo	tions, 5 is r	neutral, 10 i	s robot did	not imped	e you motio	on)
0	1	2	3	4	5	6	7	8	9	10
Question	C: (0 is robo	ot motions	made no se	ense to you	, 5 is neutr	al, 10 is rob	ot motions	made sens	e to you)	
0	1	2	3	4	5	6	7	8	(9)	10
Question I	D: (0 is you w	ould not wo	rk in this HR	C cell again,	5 is neutral,	, 10 is you en	joyed work	ing in this ce	ll with the ro	bot)
0	1	2	3	4	5	6	7	8	9	(10)

Task 1, Me	ethod 3:					Linear was likely at				
Question /	A: (0 is not	safe at all, 5	is neutral	, 10 is very	safe)					
0	1	2	3	4	5	6	7	8	9	10
Question	B: (0 is rob	ot complete	ly prevente	ed your mo	tions, 5 is r	neutral, 10 is	robot did	not impede	you motic	on)
0	1	2	3	4	5	( <del>6</del> )	7	8	9	10
Question	C: (0 is rob	ot motions r	nade no se	ense to you				made sens	e to you)	
0	1	2	3	4	(5)	6	7	8	9	10
Question D	): (0 is you w	ould not wo	k in this HR	C cell again,	5 is neutral,	, 10 is you en	joyed work	ing in this cel	l with the ro	obot)
0	1	2	3	4	5	6	7	8	9	10

Comments: Robot Experience: 3

# For Task 2 (Sharework parts: metal tabs, cylinders, pallets): (circle your answer to each question)

Task 2, M	ethod 1:									
Question	A: (0 is not	safe at all,	5 is neutra	, 10 is very	safe)					
0	1	2	3	4	5	6	7	8	9	10
Question	B: (0 is rob	ot complete	ely prevent	ed your mo	otions, 5 is i	neutral, 10 is	s robot did	not imped	e you motic	on)
0	1	2	3	4	5	6	7	8	9	10
Question	C: (0 is rob	ot motions	made no se	ense to you	, 5 is neutr	al, 10 is rob	ot motions	made sens	e to you)	
0	1	2	3	4	5	6	7	8	9	10
Question D: (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)										
0	1	2	3	4	5	6	7	8	9	10
		~								

Task 2, Me	thod 2:									
Question A	A: (0 is not	safe at all, 5	is neutral	, 10 is very	safe)					
0	1	2	3	4	5	6	7	8	9	(10)
Question E	3: (0 is rob	ot complete	ly prevente	ed your mo	tions, 5 is r	neutral, 10 i	s robot did	not imped	e you moti	on)
0	1	2	3	4	5	6	7	8	9	10
Question C	: (0 is rob	ot motions r	made no se	ense to you	, 5 is neutr	al, 10 is rob	ot motions	made sens	se to you)	
0	1	2	3	4	5	6	7	8	9	10
Question D	: (0 is you w	ould not wo	k in this HR	C cell again,	5 is neutral,	, 10 is you en	joyed worki	ng in this ce	ll with the ro	obot)
0	1	2	3	4	5	6	7	8	9	10

Task 2, M	ethod 3:							A I I I I I I I I I I I I I I I I I I I	Acres no	
Question	A: (0 is not	safe at all, !	is neutral	, 10 is very	safe)					
О	1	2	3	4	5	6	(7)	8	9	10
Question	B: (0 is rob	ot complete	ly prevente	ed your mo	tions, 5 is r	neutral, 10 is	robot did	not imped	e you motic	on)
0	1	2	3	4	5	6	7	8	9	10
Question	C: (0 is rob	ot motions i	made no se	ense to you	, 5 is neutr	al, 10 is robo	ot motions	made sens	e to you)	
0	1	2	3	4	5	6	7	8	9	10
Question D	: (0 is you w	ould not wo	k in this HR	C cell again,	5 is neutral,	, 10 is you en	joyed workii	ng in this cel	ll with the ro	bot)
0	1	2	3	4	5	6	7	8	9	10

### **Comments:**

In my opinion method 2 is the most efficient, the robot follow "comsonvertive" trajectory but this allows to perform the dash giricker.

Participant number:	14	Date:	
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